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IMPORTANCE OF IMPLEMENTATION OF SERVICE LEARNING IN SPORT AND HEALTH HIGHER EDUCATION AREA

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Abstract: Service learning is increasingly recognized as a pedagogical approach providing benefits to students, faculties, educational institutions, communities, and society. It is challenge-based and a credit-based activity with many confirmed benefits in higher education areas such as developing students' academic and personal skills, critical thinking, teamwork, and effective communication. The main aim of the research is to analyse differences in attitudes related to service learning between students who participated in academic courses with service-learning topics, and students who have no service-learning knowledge on an academic level. The research was conducted on a sample of 88 students of Physical Education aged between 20 and 24 divided into two subsamples. Students in the experimental group (N=30) were attendees of an academic course where service learning themes were implemented. Students in the control group (N=58) did not participate in the programs with service learning themes on an academic level. SELEB questionnaire with six categories: civic responsibility, interpersonal skills, leadership ability, ability to apply knowledge, general life skills, and critical thinking, were used for measuring service learning benefits for students. Differences in research groups were noted for all six categories implying that implementation of service learning content in higher education programs of physical education and sports can improve students' attitudes and quality of higher education.

Keywords: learning outcomes, quality of education, higher education area

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Introduction

Service learning (SL) on an academic level is a multidimensional pedagogy (a form of experiential learning) that is integrated within a credit-bearing course in the form of an organized, thoughtful, and meaningful project (Madsen & Turnball, 2006). Gradually, higher education establishments are broadening their objectives beyond emphasizing research as the primary focus. Instead, they are taking on more prominent roles in tackling societal requirements, enhancing students' civic capabilities, and venturing into novel forms of knowledge acquisition and teaching methodologies (Carson et al., 2014). The third mission of the university is gaining more and more importance because today's higher education institutions are expected to cooperate with society actively. As stated by Ćulum (2010), universities today are no longer expected only to achieve excellence in research and continue, but also the development of numerous connections with the external environment. It becomes clear that the interaction of universities with the stakeholders is today a big challenge for modern universities, considering that the pressures and various expectations that come from the inside and outside shape the direction of movement higher education and the current educational paradigm. She states that in the last ten years, intensively developed the research field of the university's third mission, in which the relationship between higher education and society outside the first (teaching) and second missions (research), and the double role of the university as a bearer of positive changes that contributes to society development, and entrepreneurs who contribute to economic development, at the local, regional and national level. Service-learning initiatives typically rest upon six fundamental elements: ((a) high-quality service to the community; (b) integrated learning between the service activity and classroom; (c) reflection by the student to assist in integrating service experiences with academics; (d) student voice to enhance students' role in planning and implementing the learning activities; (e) collaboration to ensure benefits for all (i.e., students, community, and university); and (f) evaluation to effectively assess progress toward both the learning and service goals (Anderson, Swick, & Yff, 2001).

Research on topics of implementation of SL among PE students has been on the rise recently (Carson & Raguse, 2014; Lo et al. 2019; Chiva-Bartoll, 2019; Pérez-Ordás et al., 2021). According to Chiva-Bartoll and Fernandez-Rio (2022), SL has the necessary elements to be considered an activist, transformative, trans-domain, and inter-contextual pedagogical model in Physical Education. Lo et al. (2019) encourage SL implications on the PE sector, considered to be a highly appreciated tool to motivate students and teachers. Continuing on recent research, SL is recognized as a pedagogical approach providing benefits to students, faculties, educational institutions, communities, and society. It is challenge-based and a credit-based activity with many

confirmed benefits in higher education areas such as developing students' academic and personal skills, critical thinking, teamwork, and effective communication.

Generally, SL is an important tool in modern education, which implies a connection with the UN goals of sustainable development. The Sustainable Development Goals (SDGs) represent an urgent and collective imperative for all nations, both developed and developing, to collaborate in a global alliance. These goals acknowledge the interdependence of eradicating poverty and addressing disparities, while concurrently enhancing health, education, and economic progress. Simultaneously, they encompass efforts to combat climate change, safeguard our oceans and forests, and promote a sustainable future (UN, 2023). In this sense, the field of physical activity and sport can be linked to several SDGs such as goal number 4 related to Quality education and goal number 11 related to sustainable cities and communities. Service-Learning can be linked with SDG number 4 (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all), SDG number 11 (Make cities and human settlements inclusive, safe, resilient and sustainable), and SDG number 16 (Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels).

Growing research interest in SL in the field of physical activity and sport emphasizes the authors Francisco-Garcés et al. (2022) according to whom SL comes as a consequence of two factors: (1) the promotion of active and participatory methodologies in higher education, stemming from the demand for higher institutions to develop university social responsibility; and (2) the beneficial effects of SL on students' development. Therefore, it is essential to introduce the implementation of SL content into higher education programs in the field of physical education and sport and to monitor and analyse the effects of such curricular changes. Many others also pointed out the importance of SL implementation in the field of sports education (Cervantes & Meaney, 2013; Carson & Raguse, 2014, etc., therefore, in this research, an attempt was made to examine how PE students, who have or do not have experience with SL, see the benefits of participating in SL activities. Since, according to previous research, there are gender differences, the research also tried to detect differences in the perception of SL benefits, depending on whether the respondents are male or female. According to previous research, there are gender differences among PE students. For example, Kuśnierz et al. (2020) pointed out that there are gender differences in school success, motivation, and personality. They emphasized that both sexes show the same general level of intellectual ability, but women are said to outperform men in academic achievement at different stages of the school system, have better grades, and achieve post-secondary qualifications in greater numbers. According to that, this research also tried to detect differences in the perception of SL benefits, depending on whether the respondents are male or female.

Aim

The main aim of the research was to analyze differences in attitudes related to service learning between students who participated in academic courses with service learning, and students who have no service learning knowledge on an academic level. Another important goal of this research approach is to check the applicability of the SELEB scale on a sample of PE students.

The research set up in this way is in line with studies that support the beneficial effects of SL on students' development (according to Francisco-Garcés, et al. 2022) and at the same time analyses the effects of curriculum changes, which is an important indicator of changes in modern higher education.

Since research-based curricular changes are of crucial importance for PE students, the hypothesis, posted for this research, was:

H1: There is a difference in the perception of the Service-Learning benefits that are previously experience-conditioned.

H2: The SELEB scale is an appropriate tool for testing the benefits of SL among PE students.

H3: There are a gender basis differences in Service-Learning benefits among students.

Methods

The research was conducted on a sample of 88 students of Physical Education aged between 20 and 24 divided into two subsamples. Students in the experimental group (N=30) were attendees of an elective academic course where service learning themes were implemented. Students in the control group (N=58) did not participate in the programs with service learning themes on an academic level.

For the data analysis, descriptive statistics; mean, and standard deviation were made, together with a T-test, Levence's test for equality of variances.

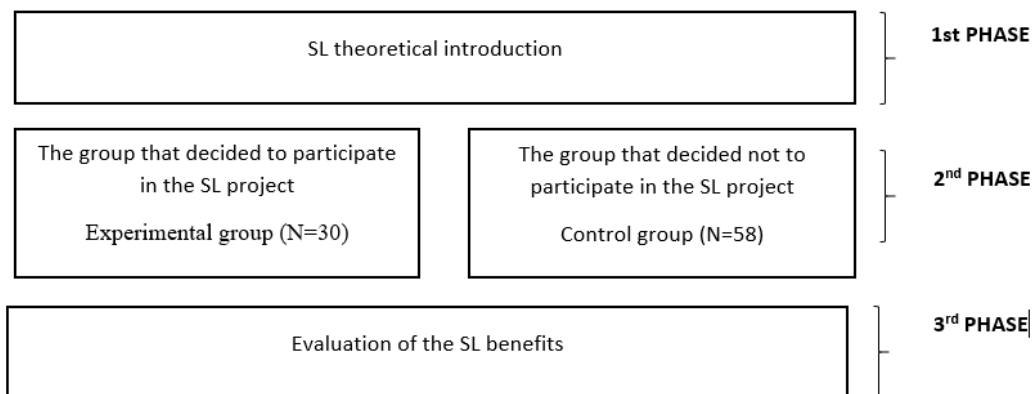
The research was conducted in several stages. In the first phase, students are introduced to the SL term and its benefits. After that, in the second phase, students were offered to develop knowledge about the SL through the elective course. The experimental group was made of students who decided to further develop knowledge about SL and its application in society, but who have not yet started independently implementing SL projects. The students in the control group did not participate in the SL programs. The goal of the sample selected in this way is to continuously monitor

students' perception of SL benefits. In the third phase of the research, student perception of SL benefits was monitored after self-implemented SL projects for the ones who participated in the SL activities and for the ones who didn't. In the continuation, the third phase of the research was conducted, where both groups participated in the questionnaire to evaluate SL benefits.

The goal of such segmented research is to test the six-stage SL model (According to Anstee et al. 2008.) on PE students. Model consists of the following stages: (1) Establishing Community Collaboration; (2) Partnering in the Classroom; (3) Student Training; (4): Delivering the Service Module; (5) Returning to the Classroom; (6) Reporting to Stakeholders.

Students in the experimental group have achieved Stage 1 (Resource Mapping, Key Stakeholder Identification, Matching Community Needs); Stage 2 (Diversity Awareness and Education, Developing Student Interest) started Stage 3 (Preparation of Research Design). The experimental design is presented in Picture 1.

Picture 1. Experimental design of the research



Source: authors

To identify the benefits that students perceived during the implementation of service-learning activities SELEB questionnaire was applied. SELEB questionnaire with six categories: civic responsibility, interpersonal skills, leadership ability, ability to apply knowledge, general life skills, and critical thinking, was used for measuring service learning benefits for students.

The SELEB scale was developed by Toncar et al. (2006) as a useful tool for assessing the quality and effectiveness of service-learning initiatives from the student's perspective. The SELEB scale consisted of six factors: civic responsibility, interpersonal skills, leadership ability, critical thinking, ability to apply knowledge and general life skills that can be used to test the benefits of service learning for students. Dimensions are presented with items explained in Picture 2. Six factors were covered with a list of the 27 items that captured the range of benefits reported in prior literature. Students were asked to indicate how important each of the 27 items was to their educational experience, using a seven-point Likert scale anchored by "not at all important" and "very important."

Picture 2. Six dimensions of the SELEB scale developed by Toncar et al.(2006)

| | | |
|-----------|----------------------------------|--|
| SELE B | CRITICAL THINKING | Social Responsibility and Citizenship Skills, Community Involvement, Service to People in Need, Ability to Make a Difference in the Community |
| | CIVIL RESPONSIBILITY | Communication Skills, Understanding Cultural and Racial Differences, Social Self-Confidence, Developing Caring Relationships, Empathy and Sensitivity to the Plight of Others |
| | INTERPERSONAL SKILLS | Ability to Work Well with Others, Leadership skills, Being Trusted by Others, Backgrounds |
| | LEADERSHIP ABILITY | Applying Knowledge to the "Real World", Social Action Skills, Connecting Theory and Practice |
| | KNOWLEDGE APPLICATION | Spiritual Growth, Personal Growth, Professional Relationships with Faculty, Conflict Resolution, Ability to Assume Personal Responsibility, Development of Workplace Skills (punctuality, taking direction), Having a Stronger Voice in the Classroom, Organizational Skills and Bolster Resum |
| | GENERAL LIFE SKILLS | Problem Analysis and Critical Thinking |

Source: authors modification

Descriptive statistics was used to summarize and describe the data collected from the SELEB questionnaire (mean value and Standard Deviation with two different target groups – control one and experimental one.

Results and discussion

At the beginning of the research, descriptive research and a T-test were made to measure the differentness of SL benefits in the category of students who had experience with service learning (N=30) – Experimental group. After that, the descriptive statistics were made with PE students who did not participate in the programs with service learning themes on an academic level (N=58) – The control group in the research.

Table 1. A T-test of the SELEB sub-scales for the experimental group and control group

| | Experimental group (N=30) | Control group (N=58) |
|-----------------------|----------------------------------|---------------------------------|
| | Mean \pm SD | Mean \pm SD |
| Critical thinking | 5.90 \pm 1.24 | 5.67 \pm 1.13 |
| Civil responsibility | 5.89 \pm 0.93 | 5.63 \pm 0.76 |
| Interpersonal skills | 5.66 \pm 1.03 | 5.69 \pm 0.91 |
| Leadership ability | 5.90 \pm 0.72 | 5.70 \pm 0.79 |
| Knowledge application | 6.08 \pm 0.97 | 5.96 \pm 0.84 |
| General life skills | 5.00 \pm 0.75 | 4.92 \pm 0.74 |
| SELEB total | 5.77 \pm 0.74 | 5.65 \pm 0.69 |

Source: authors

Analysing the data, it is possible to conclude that the mean values of all subscales and the main scale were higher for students who had no experience with the topic of service learning. The only deviation was observed in the Interpersonal skills subscale, where a higher mean value was recorded for students who had no previous experience with service learning. Students with no SL experience see Interpersonal skills as a higher benefit of SL than students who have SL experience (Ability to work with others, Leadership Skills, being trusted by others, backgrounds). Furthermore, it can be concluded that students recognized different benefits of SL, and we can conclude that the SELEB scale is suitable for testing the perception of SL benefits among PE students. The findings reveal that mean values for all SELEB subscales and the main scale were generally higher among students without SL experience. An exception is the

interpersonal skills subscale, where students without prior SL experience attributed greater importance to these skills. This suggests that students without SL exposure view interpersonal skills as a more substantial SL benefit. Ultimately, the research indicates that the SELEB scale is suitable for assessing PE students' perceptions of SL benefits. It is also important to note that this research relies on self-reported data through the SELEB questionnaire. While this approach is common in social research, it introduces the possibility of response bias. Students might provide responses they believe align with expectations or social desirability, potentially leading to an inaccurate representation of their true attitudes and experiences.

In the continuation, differences among the students made on a gender basis were tested. In total, in the research, 46 male and 39 female students participated. Other students did not want to be gender registered. According to the results of the T-test, it can be concluded that the female students have a higher mean in all the subscales and the main scale of the SELEB, except the subscale of Critical Thinking, where the values are equated with the results of the male students (Table 2).

Table 2. Comparison of the SL benefits depending on gender basis

| | Male students (N=46) Mean ± SD | Female students (N=39) Mean ± SD |
|-----------------------|---|---|
| Critical thinking | 5.77 ± 1.18 | 5.77 ± 1.09 |
| Civil responsibility | 5.66 ± 0.83 | 5.83 ± 0.69 |
| Interpersonal skills | 5.53 ± 0.96 | 5.89 ± 0.78 |
| Leadership ability | 5.71 ± 0.77 | 5.82 ± 0.76 |
| Knowledge application | 5.97 ± 0.72 | 6.09 ± 0.94 |
| General life skills | 5.49 ± 0.76 | 5.60 ± 0.74 |
| SELEB total | 5.64 ± 0.66 | 5.78 ± 0.64 |

Source: authors

In the continuation, Levence's test for equality of variances was made with the aim of testing gender differences. Data analysis looked at whether $p < 0.05$. In that case, variances are significantly different so we can assume that there is a difference and they are not equal. If the $p > 0.05$ variances are not significantly different, so we can assume they are equal. According to the results, it is clear that in some subscales there are differences while in others there are none. For all the subscales and the main SELEB scale, the variance was not significantly different, so we can assume that they are different.

Table 3. Results of the Levene's Test

| Independent Samples Test | | | | | | | | | | |
|--------------------------|-----------------------------|---|------|------------------------------|-------|-----------------|-----------------|-----------------------|---|-------|
| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Civil responsibility | Equal variances assumed | 0.73 | 0.39 | -0.89 | 83 | 0.37 | -0.15 | 0.17 | -0.48 | 0.18 |
| | Equal variances not assumed | | | -0.91 | 83.00 | 0.37 | -0.14 | 0.16 | -0.47 | 0.18 |
| Interpersonal skills | Equal variances assumed | 0.30 | 0.58 | -1.69 | 83 | 0.09 | -0.32 | 0.19 | -0.69 | 0.05 |
| | Equal variances not assumed | | | -1.72 | 82.99 | 0.09 | -0.32 | 0.18 | -0.69 | 0.05 |
| Leadership ability | Equal variances assumed | 0.75 | 0.39 | -0.64 | 83 | 0.52 | -0.10 | 0.17 | -0.44 | 0.22 |
| | Equal variances not assumed | | | -0.65 | 81.40 | 0.52 | -0.11 | 0.17 | -0.44 | 0.22 |
| Knowledge application | Equal variances assumed | 1.55 | 0.22 | -0.64 | 83 | 0.52 | -0.11 | 0.18 | -0.47 | 0.24 |
| | Equal variances not assumed | | | -0.63 | 70.44 | 0.53 | -0.11 | 0.18 | -0.48 | 0.25 |
| General life skills | Equal variances assumed | 0.09 | 0.76 | -0.56 | 83 | 0.58 | -0.09 | 0.16 | -0.42 | 0.23 |
| | Equal variances not assumed | | | -0.56 | 81.68 | 0.58 | -0.09 | 0.16 | -0.42 | 0.23 |

| | | | | | | | | | | |
|--------------------------|------------------------------------|------|------|-------|-------|------|-------|------|-------|------|
| Critical Thinking | Equal variances assumed | 0.69 | 0.41 | 0.05 | 83 | 0.96 | 0.01 | 0.25 | -0.48 | 0.51 |
| | Equal variances not assumed | | | 0.05 | 82.52 | 0.96 | 0.01 | 0.25 | -0.48 | 0.51 |
| SELEB | Equal variances assumed | 0.04 | 0.84 | -1.01 | 83 | 0.31 | -0.14 | 0.14 | -0.42 | 0.14 |
| | Equal variances not assumed | | | -1.01 | 81.54 | 0.31 | -0.14 | 0.14 | -0.42 | 0.14 |

Source: authors

These results are not in line with the previous research made in physical education classes that showed that there were significant differences in student motivation between male and female students, in general in engaging (Kurniawan et al., 2022). The results of this research showed that there is no statistically significant difference between male and female students in the perception of the SL benefits.

It is important to emphasize that the research was conducted with a relatively small sample size of 88 PE students. This limited sample might not fully represent the diverse population of PE students, which could impact the generalizability of the findings to a broader context.

A possible limitation of this study is that the implementation of SL in the curricula of higher education for PE students is only in the initial phase. This presupposed that students gained only theoretical knowledge about SL through compulsory courses and SL was introduced to students only at the informative and theoretical level. Nevertheless, this introductory segment allows PE students to recognize SL as an important segment of their education through which they can participate in the development of projects that will improve their professional knowledge and skills. At the same time, they can participate in the development of modern society in those segments for which the projects are targeted.

The study acknowledges that the implementation of SL in PE curricula is in its early phases, with students having primarily received theoretical knowledge about SL. This limited exposure might not accurately reflect the potential impact of fully integrated and practical SL experiences. The findings could be influenced by the novelty of the SL concept to the students, potentially affecting their perceptions.

Conclusion

In conclusion, the research contributes to the discourse on SL's integration into physical education and sports curricula. The study sheds light on differences in perceived SL benefits among students and validates the utility of the SELEB scale. As SL gains traction in higher education, understanding its impact on students' attitudes and skills remains crucial for refining educational approaches and fostering well-rounded development. While SL contributes to different skill sets such as critical thinking, leadership, and civic responsibility, the findings also highlight the key role of interpersonal skills in this context. Variations in how students perceive these skills based on their SL exposure imply that educators should consider adapting SL programs to meet the specific needs of novice and experienced SL participants, fostering a well-rounded skill set among PE students.

The study also demonstrates the suitability of the SELEB (Service Learning Experience and Benefits) scale as a reliable tool for assessing the perceived benefits of SL among Physical Education (PE) students. The scale's ability to capture dimensions such as civic responsibility, critical thinking, leadership ability, and more provides a structured framework for evaluating the impact of SL. This validation supports the use of SELEB in future research endeavors and educational settings to measure the effectiveness of SL initiatives in PE programs.

The research findings underscore that students with prior experience in Service Learning (SL) tend to perceive higher benefits across various dimensions compared to students who have not encountered SL in their academic journey. This contrast is particularly noticeable in the domain of interpersonal skills. While students with no SL exposure do appreciate the value of these skills, students with prior exposure emphasize them even more.

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